

# ARASH HEIDARI

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## EDUCATION

**Ghent University** **Ghent, Belgium**  
Computer Science (*Ph.D*) **Aug 2021 – Present**

- **Supervisors:** Dr. Ivo Couckuyt, Dr. Sebastian Rojas Gonzalez
- **Thesis:** Targeting Evaluation, Computation and Interaction Costs in Expensive Black-Box Multi-Objective Optimization

**Iran University of Science and Technology** **Tehran, Iran**  
Electrical Engineering (*MS.c.*) **Sep 2016 – Jul 2018**

- **Supervisor:** Dr. Sattar Mirzakuchaki
- **Thesis:** DPA-Resistant and Low Power Cryptography in IoT Devices.
- **GPA:** 18.27 / 20

**Iran University of Science and Technology** **Tehran, Iran**  
Electrical Engineering (*BS.c.*) **Sep 2012 – Jul 2016**

- **Supervisor:** Dr. Sattar Mirzakuchaki
- **Thesis:** Internet-Enabled Control for Enhanced Surveillance System Operation
- **GPA:** 16.19 / 20

## EXPERIENCE

**IDLab (imec - Ghent University)** **Ghent, Belgium**  
AI Researcher **Aug 2021 – Present**

- Execution of various AI-based projects from diverse corporate clients at IDLab.
- Successful collaborations with industry leaders: Boeing, Sirris, and Atlas Copco.
- Involvement in University-Industry Collaboration (Flanders AI Research Program).
- Supervision of junior researchers and master students

**Iran University of Science and Technology** **Tehran, Iran**  
AI Researcher **Jan 2019 – Dec 2020**

- Execution of AI-based projects, as the primary responsibility.
- Collaborations with PhD and master's students on AI-related projects.
- Teaching machine learning, deep learning, and Python programming language.

## SKILLS

**Programming** Python, C/C++, JavaScript, R, TensorFlow, PyTorch, SQL, Plotly

**Machine Learning** Deep Learning, Time-Series Analysis, Optimization, Uncertainty Quantification, Anomaly Detection, Resource-Efficient ML

**Software Development** GUI Development, Embedded Software Development, Linux

**MLOps** MLflow, Git, Docker, Grafana

**Languages** Persian, English (Fluent), German (Intermediate), Dutch, Spanish, French (Basic Understanding)

**Soft Skills** Leadership, Interdisciplinary Collaboration, Public Speaking, Technical Communication, Adaptability, Curiosity-Driven Learning

## HIGHLIGHTED PUBLICATIONS

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### **Towards Trustworthy Surrogate Models for Augmenting Certification: Fuel Tank Flammability Reduction System** 2025

- **Authors:** A. Heidari, L. Werthen-Brabants, S. Rojas Gonzalez, I. Couckuyt, C. Onur, P. van Gils, I. Jojic
- **Journal:** AIAA Journal of Aerospace Information Systems

### **Knee Detection in Bayesian Multi - Objective Optimization Using Thompson Sampling** 2024

- **Authors:** A. Heidari, J. Qing, S. Rojas Gonzalez, J. Branke, T. Dhaene, I. Couckuyt
- **Journal:** IEEE Transactions on Evolutionary Computation

### **Optimizing Memory Footprint for Radar - Based Human Activity Recognition on Resource - Constrained Devices** 2024

- **Authors:** A. Heidari, L. Werthen-Brabants, I. Couckuyt, T. Dhaene
- **Conference:** European Radar Conference (EuRAD)

### **Optimized Data Transmission for Radar - Based Edge - Cloud Human Activity Recognition via Quantization** 2024

- **Authors:** V. Tuytte, A. Heidari, L. Werthen-Brabants, I. Couckuyt, T. Dhaene
- **Conference:** European Radar Conference (EuRAD)

### **Lower Confidence Bound for Preference Selection in Interactive Multi - Objective Optimization** 2024

- **Authors:** A. Heidari, S. Rojas Gonzalez, I. Couckuyt, T. Dhaene
- **Conference:** The Genetic and Evolutionary Computation Conference (GECCO)

### **Data - Driven Surrogate Modeling for the Flammability Reduction System** 2024

- **Authors:** A. Heidari, L. Werthen-Brabants, T. Dhaene, I. Couckuyt, C. Onur, P. van Gils, I. Jojic
- **Conference:** AIAA SCITECH Forum

### **Surrogate - Assisted Evolutionary Algorithm for the Calibration of Distributed Hydrological Models Based on Two - Dimensional Shallow Water Equations** 2024

- **Authors:** J. Farfán - Durán, A. Heidari, T. Dhaene, I. Couckuyt, L. Cea
- **Journal:** Water

## ACHIEVEMENTS

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### **Outstanding Student – Digital Electronic Systems Graduate Program** 2018

- Granted direct admission to the Ph.D. program in electrical engineering at Iran University of Science and Technology

## REFERENCES

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References available upon request.